

# Research Grants Council to present public lecture on “Fintech and Artificial Intelligence” on May 19

The following is issued on behalf of the University Grants Committee:

The Research Grants Council (RGC) will present its first public lecture this year under the theme "Fintech and Artificial Intelligence" on May 19 (Saturday) at the Hong Kong Science Museum.

The RGC has invited Associate Professor of the Department of Information Systems, Business Statistics and Operations Management at the Hong Kong University of Science and Technology Dr James Kwok and Associate Professor of the Department of Computer Science at the City University of Hong Kong Dr Andy Chun to share their research findings and knowledge with the public. Details are as follows:

Time: 2.30pm to 4.30pm

Venue: Lecture Hall, Hong Kong Science Museum

Language: Cantonese

Admission is free on a first-come, first-served basis.

Stock markets are fraught with ups and downs. However, financial institutions and financial market experts still make profits from stock markets with their knowledge and strategies. Artificial intelligence (AI) can learn from past experience, adjust to new data, and make decisions better and faster than humans. Dr Kwok will deliver a talk on "Can AI predict stock prices?" to explain how to train AI and turn it into a full-fledged financial market expert.

AI and Fintech bring benefits to our everyday life. Dr Chun will give a lecture entitled "AI/Fintech and their future impact to our daily lives" to provide an overview of the current and potential developments of AI and Fintech, as well as their potential risks to our daily lives. He will also explore the privacy, security and moral/ethical issues arising from the use of these technologies.

The public lectures of the RGC aim at arousing public interest in local research developments. Since 2009, the RGC has invited numerous leading scholars to speak at these lectures. For enquiries, please call 2524 3987 or visit the University Grants Committee webpage ([www.ugc.edu.hk/eng/rgc/lectures/lectures.html](http://www.ugc.edu.hk/eng/rgc/lectures/lectures.html)).

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## LCQ21: Unmanned aircraft systems

Following is a question by the Hon Chan Hak-kan and a written reply by the Acting Secretary for Transport and Housing, Dr Raymond So Wai-man, in the Legislative Council today (May 16):

Question:

According to the existing legislation, any person must apply to the Civil Aviation Department before operating any unmanned aircraft system (UAS) weighing over seven kilogrammes (without fuel) or operating a UAS for reward. In recent years, while UASs have become increasingly versatile, the privacy and safety issues arising from the operation of UASs have aroused growing concern. In this connection, will the Government inform this Council:

(1) of the number of complaints about clandestine photo-taking by using UASs received by the authorities in the past three years; the follow-up actions taken by the authorities in respect of those complaints, and whether they have instituted prosecutions against the UAS operators concerned;

(2) as UASs are currently not allowed to be flown in areas such as the vicinity of an airport or aircraft approach and take-off paths and country parks, of the number of reports received by the authorities in the past three years about UASs intruding into the said no-fly zones; the follow-up actions taken by the authorities in respect of these cases, and whether they have instituted prosecutions against the UAS operators concerned; whether they will consider using new technological equipment (e.g. an electronic interference system) to prevent UASs from intruding into the no-fly zones; if so, of the details; if not, the reasons for that;

(3) given that more and more people operate UASs as a leisure activity, whether the authorities will consider relaxing the provision prohibiting the flying of UASs in country parks, or designating a park in which flying UASs is allowed; and

(4) given that UASs are currently deployed overseas for delivering goods by some companies, whether the authorities have plans to assist the relevant industry in Hong Kong in the development of that kind of service?

Reply:

President,

In Hong Kong, UAS are classified as aircraft and are governed, as far as aviation safety is concerned, by the civil aviation legislation. The Civil Aviation Department (CAD) is committed to ensuring aviation safety, including UAS operations, such that these operations are performed in compliance with flight safety rules. According to the prevailing laws, any operator of UAS, regardless of the weight of the UAS, must observe Article 48 of the Air

Navigation (Hong Kong) Order 1995 (Cap. 448C). Under this provision, a person shall not recklessly or negligently cause or permit an aircraft to endanger any person or property. Articles 3, 7 and 100 of Cap. 448C also provide that any person must apply to the CAD for a Certificate of Registration and a Certificate of Airworthiness for any UAS weighing more than seven kilograms (without fuel) before he/she could operate such aircraft in Hong Kong. Furthermore, Regulation 22 of the Air Transport (Licensing of Air Services) Regulations (Cap. 448A) requires that, regardless of the weight of the UAS, if a person uses a UAS for reward, he/she must lodge an application with the CAD before operating such aircraft and abide by the conditions stipulated in the permit granted by the CAD in providing the service. Apart from operating in a safe manner in accordance with the applicable civil aviation legislation, operators must also observe other relevant laws of Hong Kong, such as the Telecommunications Ordinance (Cap. 106).

At present, the CAD publishes safety guidelines and textual information in its website ([www.cad.gov.hk/english/Unmanned\\_Aircraft\\_Systems.html](http://www.cad.gov.hk/english/Unmanned_Aircraft_Systems.html)) on areas where UAS should not be flown. Such guidance serves to protect aircraft as well as other people and properties (e.g. UAS should not be flown in populated and congested areas, UAS should be operated 50 metres away from other person or structure, etc). In addition to the above, there may be other restrictions imposed by other government bureaux/departments, authorities or venue managers which may be applicable to UAS operations.

At the same time, the CAD will continue the promotion of safe UAS operations through various channels, including CAD's website, social media platform, etc. Since October 2016, the CAD has distributed over 33 800 safety leaflets to UAS operators as well as general public through major distributors, manufacturers, flying clubs/associations, Home Affairs Enquiry Centres of all 18 Districts. To reach out to a wider audience, the CAD launched a campaign to broadcast UAS safety messages through television and radio programmes in May 2017.

On the specific questions asked, our reply is as follows:

(1) to (2) The numbers of complaints of UAS operations received by the CAD in the past three years are as follows:

Name of Department/Organization	Year/No. of Complaint Case		
	2015	2016	2017
CAD	27	47	60

Note: The Hong Kong Police Force does not keep record on the number of complaints on UAS operations.

Since 2017, the CAD has started categorising complaints received in relation to UAS. Complaints received in the year mainly involved UAS being operated at an inappropriate time, location and/or height. In addition, nine out of 60 complaints in 2017 concerned or involved privacy-related issues.

At present, the safety guidelines of the CAD list out areas where UAS shall not be flown or areas not suitable for UAS operations, for example, populated and congested areas, the Hong Kong International Airport, helipads, Victoria Harbour and its coastal area, etc. In 2017, the CAD received 41 complaints which related to UAS operations in areas specified in the abovementioned safety guidelines.

Upon receipt of complaints, the CAD will take appropriate follow-up actions which may include obtaining further information from the parties concerned, urging the parties concerned to comply with UAS safety guidelines and rules published by the CAD, requesting the relevant Police division to step up patrol. When needed, the CAD will refer the complaint case to the Police for follow up. In addition, CAD has been liaising with the Police and providing technical support to the Police in its enforcement action.

As regards prosecution, as of the first quarter of 2018, in the past three years, the Hong Kong Police Force has initiated prosecution on two cases. One case (which took place in 2017) was convicted and one case (which took place in 2016) was under trial by the court.

(2) to (4) To assist the Government to review the appropriateness and effectiveness of the existing statutory requirements and in exploring ways to refine the prevailing regulatory regime with a view to accommodating the technological development and diversified uses of UAS while safeguarding public safety, the CAD engaged a consultant in March 2017 to conduct a study on the regulation of UAS. In early April 2018, the CAD published the consultancy report ([www.cad.gov.hk/english/uas\\_view.html](http://www.cad.gov.hk/english/uas_view.html)) and launched a 3-month public consultation on six key proposals regarding the UAS regulatory regime, including the establishment of a UAS registration system, risk-based classification of UAS operations, training and assessment requirements, drone maps for UAS operators, insurance requirements for UAS, and indoor operations of UAS. Members of the public can also express their views on other UAS related issues. The CAD will study the public's views in consultation with relevant government bureaux/departments, with the aim of striking an appropriate balance between facilitating usage and development of UAS on the one hand and protecting public safety on the other. Subject to the outcome of the public consultation, the CAD will formulate a detailed proposal on the way forward.

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## **Effective Exchange Rate Index**

The effective exchange rate index for the Hong Kong dollar on Wednesday, May 16, 2018 is 99.4 (up 0.4 against yesterday's index).

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## LCQ19: Air quality in Public Transport Interchanges

Following is a question by the Hon Kenneth Leung and a written reply by the Acting Secretary for Transport and Housing, Dr Raymond So Wai-man, at the Legislative Council meeting today (May 16):

Question:

The Practice Note on Control of Air Pollution in Semi-confined Public Transport Interchanges, which was issued by the Environmental Protection Department (EPD) in 1998, provides guidelines on aspects such as the air quality, the design required as well as the operation and maintenance of the ventilation systems of semi-confined public transport interchanges (PTIs). Recently, a newspaper reported that the concentrations of two types of air pollutants, namely nitrogen dioxide and fine suspended particulates (i.e. PM2.5) as recorded in several covered PTIs had substantially exceeded the relevant target limits under the Air Quality Guidelines of the World Health Organization. In this connection, will the Government inform this Council:

- (1) of the current total number of covered PTIs in Hong Kong and, in respect of each PTI, (i) the location, (ii) the area, (iii) the number of bus routes which can be accommodated, and (iv) the type of ventilation system installed;
- (2) of the number of complaints about the air quality of covered PTIs received by the authorities in the past five years; the contents of the complaints and the names of the PTIs involved;
- (3) whether it conducted any detailed study in the past five years on ways to improve the related facilities and environment (including air quality or ventilation systems) of covered PTIs; if so, of the details, if not, the reasons for that; and
- (4) given that in the light of the latest development in air quality standards, EPD is liaising with the relevant government departments so as to review the aforesaid guidelines, of the details of such review, and how EPD will improve the air quality of PTIs?

Reply:

President,

My reply to various parts of the Hon Kenneth Leung's question is as follows:

- (1) At present, there are a total of 65 covered public transport interchanges (PTIs) managed by the Transport Department (TD) in Hong Kong to facilitate

passengers' interchange between different public transport services. The locations of the covered PTIs managed by the TD, their respective size, the number of bus routes observing the PTIs and the type of ventilation systems installed are at Annex 1.

(2) From 2014 to April 2018, the TD received a total of 111 complaint cases concerning PTIs' air quality or ventilation systems, involving 37 PTIs (details at Annex 2). The complaint cases were mainly about the insufficient ventilation, air quality, damages and noise nuisance of ventilation systems, etc.

(3)&(4) In respect of the daily operation and management of PTIs, the TD, together with the Electrical and Mechanical Services Department (EMSD), have been monitoring the air quality of the PTIs as well as the operation of the ventilation systems regularly, and have carried out repair and maintenance works as appropriate. Besides, the TD commissions the EMSD to conduct air quality measurements in the covered PTIs managed by the TD approximately every two years. The frequency of measurements would be increased as the actual situation requires. Every air quality measurement covers 24 hours a day, including both the morning and evening peak hours, and collects data about the concentration of carbon monoxide (CO), sulphur dioxide (SO<sub>2</sub>) and nitrogen dioxide (NO<sub>2</sub>) in the PTIs. Based on the measurement results, the TD will work with the relevant government departments to consider and implement appropriate improvement measures, including extending the operating hours of ventilation systems, increasing the air volume, strengthening the management of switching off idling engines at PTIs and requesting the bus companies to deploy more environmentally friendly models of buses (including Euro IV and V) to operate the routes involved.

As regards the formulation and review of the Practice Note for Professional Persons – Control of Air Pollution in Semi-Confined Public Transport Interchanges (Practice Note), the existing Practice Note sets out the air quality (including CO, NO<sub>2</sub> and SO<sub>2</sub>) guidelines for semi-confined PTIs, as well as the design of the PTIs and operation and maintenance of the systems required to meet the air quality guidelines for reference by the relevant professionals. The Environmental Protection Department (EPD) will work with relevant government departments to review the Practice Note. According to the EPD, factors including the actual operation and need of the PTIs as well as the local and overseas short-term air quality standards of similar air pollutants will be taken into consideration when reviewing the Practice Note.

The Government will continue to closely monitor the air quality and the operation of ventilation systems in the PTIs, and examine the causes of the unsatisfactory air quality. Additional measures will be taken based on the actual situation in order to enhance the air quality in the PTIs.

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# LCQ16: Control of unauthorised signboards

Following is a question by the Dr Hon Chiang Lai-wan and a written reply by the Secretary for Development, Mr Michael Wong, in the Legislative Council today (May 16):

Question:

At present, there are tens of thousands of unauthorised signboards in the territory, and abandoned signboards that may endanger public safety are not uncommon. The Government launched the Validation Scheme for Unauthorised Signboards in 2013 to allow the continued use of certain unauthorised signboards after they have undergone safety inspection, strengthening (if necessary), and certification by prescribed building professionals or registered contractors. On the other hand, it has been reported recently that although the Buildings Department (BD) has arranged to remove some abandoned signboards upon receipt of reports from members of the public, most of the abandoned signboards are still left unattended. Each year, BD issues a number of removal orders in respect of dangerous, abandoned and unauthorised signboards, and there are nearly 2 000 signboards in respect of which the removal orders have not been complied with. Some experts have warned that such type of signboards, if become dilapidated, will pose hazards to public safety at any time. In this connection, will the Government inform this Council:

- (1) of the respective numbers of dangerous, abandoned and unauthorised signboards which the authorities arranged to remove in each of the past five years, broken down by District Council district;
- (2) whether it will, for the purpose of safeguarding public safety, allocate additional resources and manpower to expedite the handling of abandoned signboards and cases of signboard owners' failure to comply with the removal orders upon expiry of the deadlines; if so, of the details; if not, the reasons for that;
- (3) given that under urgent circumstances, BD will engage government contractors to remove dangerous signboards and recover the cost of such works plus supervision charge and surcharge from the signboard owners afterwards, of the number of such cases, the total expenses involved and the sum of money recovered, in each of the past three years;
- (4) whether it will set up a hotline dedicated to reporting abandoned signboards by the public with a view to removing abandoned signboards expeditiously; if so, of the details; if not, the reasons for that;
- (5) whether it will publish regularly the locations of the abandoned signboards which have yet to be removed by signboard owners pursuant to the removal orders, so as to raise the alertness of the public; if so, of the

details; if not, the reasons for that;

(6) whether it will review and improve the Validation Scheme for Unauthorised Signboards, e.g. stepping up the promotional work and changing the nature of the scheme from voluntary to mandatory so as to enhance the effectiveness of the Scheme; if so, of the details; if not, the reasons for that; and

(7) whether it will increase the penalties to be imposed on signboard owners who have failed to comply with the removal orders, so as to enhance the deterrent effect; if so, of the details; if not, the reasons for that?

Reply:

President,

The Government has all along attached great importance to signboard safety. At present, any signboards erected without obtaining the approval and consent of the Buildings Department (BD) or following the requirements under the Minor Works Control System (MWCS) are unauthorised building works (except that the signboard, due to its scale, is regarded as designated exempted works (DEW) which can be carried out without obtaining prior approval and consent of BD or complying with the MWCS requirements)(Note). BD may issue statutory removal orders to signboard owners or individuals concerned in accordance with section 24 of the Buildings Ordinance (BO) (Cap. 123). Regarding abandoned or dangerous signboards, BD may issue Dangerous Structure Removal Notices (DSRNs) to their owners in accordance with section 105(1) of the Public Health and Municipal Services Ordinance (PHMSO) (Cap. 132), requiring removal of the signboards concerned. In emergency situations, BD may engage government contractors to remove dangerous signboards immediately and then recover the costs from the individuals concerned.

Taking into consideration the fact that many of the existing signboards in Hong Kong are in active use by business operators and that their existence carries considerable value for sustaining local commercial activities and contributing to Hong Kong's prosperity, BD has implemented the Signboard Validation Scheme (SVS) since September 2, 2013. The SVS allows the continued use of signboards that are relatively small in scale, pose less potential risk, were erected before the implementation date of the scheme and meet the prescribed technical specifications for minor works on the condition that they have undergone safety inspection and strengthening (if necessary) by prescribed building professionals and/or prescribed registered contractors validated by BD, and undergone inspection on a regular basis.

The current Signboard Control System is adopting the "risk-based" principle. Apart from implementing the SVS on an ongoing basis, BD also carries out large scale operations (LSO) in selected target streets to comprehensively handle the unauthorised signboards of particular sections of the selected target streets. When carrying out the LSOs, BD officers will issue statutory removal orders against unauthorised signboards that have yet joined the SVS in order to urge the relevant owners to join the SVS as early



as possible, as well as issue statutory removal orders or DSRNs against those large-scaled unauthorised signboards which are ineligible for the SVS, so as to eliminate the possible public safety risks.

Besides, BD will take immediate enforcement action against signboards constituting obvious hazard to life or property, and give priority to enforce against unauthorised signboards under construction or newly erected.

Note: One of the examples of signboard falls under the category of DEW is the erection of a wall signboard fixed to the external wall of a building with display area of not more than 1 square meter, not comprising any display system consisting of light emitting diodes, projecting not more than 150 millimeter from the wall, and with a distance of not more than 3 meters from the ground.

In consultation with BD, the Development Bureau provides a consolidated reply as follows:

(1) As mentioned above, at present, BD mainly issues statutory removal orders or DSRNs in accordance with the relevant provisions of the BO or the PHMSO to signboard owners or individuals concerned, requiring them to remove or repair the unauthorised signboards concerned within the time specified in the orders or DSRNs. The geographical distribution of the numbers of unauthorised signboards handled by BD with the aforesaid approach in each of the past five years are tabulated below:

District	2013	2014	2015	2016	2017
Central and Western	115	214	230	173	262
Eastern	149	101	234	227	226
Kowloon City	281	235	241	169	244
Kwai Tsing	27	18	27	38	16
Kwun Tong	10	83	61	37	84
North	30	10	42	132	69
Islands	0	2	1	44	2
Sai Kung	3	13	40	8	9
Sham Shui Po	155	270	203	237	271
Sha Tin	0	38	53	32	57
Southern	55	16	53	49	29
Tai Po	15	18	39	59	44
Tsuen Wan	28	84	74	56	149
Tuen Mun	16	12	22	37	32
Wan Chai	164	252	350	434	356
Wong Tai Sin	22	22	20	38	26
Yau Tsim Mong	208	602	868	737	632
Yuen Long	12	72	86	116	143

Total	1 290	2 062	2 644	2 623	2 651
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(2) BD has been taking enforcement action against unauthorised signboards by following up public reports and taking proactive inspections including carrying out LSOs. In 2017-18, the number of professional and technical staff of the Signboard Control Unit in BD had increased from 35 to 42 to centralise the handling of cases related to unauthorised signboards as well as to step up the enforcement actions against them.

BD will continue to closely monitor the effectiveness of enforcement and manpower requirement, and would bid for additional resources in accordance with the established procedures as necessary.

(3) At present, BD engages government contractors to deal with unauthorised signboards in relation to expired non-compliant statutory removal orders or DSRNs to avoid them from affecting public safety. In the past three financial years, the numbers of relevant cases are 387, 410 and 280 (up to the end of 2017) respectively. BD will recover the costs from the signboard owners or individuals concerned after the completion of works. BD however does not compile readily available separate statistics on the expenses involved and the sum of money recovered from relevant signboard owners of these cases.

On the other hand, if any signboards are found to constitute obvious hazard to life or property through public reports or when conducting proactive inspections, BD will immediately appoint government contractor to remove the dangerous signboards and will recover the costs from the individuals concerned afterwards. The statistics on emergency works to remove dangerous signboards by government contractors appointed by BD in the past three financial years are tabulated below:

	Number of cases with emergency removal of dangerous signboards by government contractors (Note 1)	Expenditure on removal works covered by government funding due to failure to identify signboard owners (\$)	Expenditure on removal works with signboard owners identified (\$)	Amount recovered from signboard owners (Note 3) (\$)
2015-16	5(1)	11,064	40,063	22,626
2016-17	6(1)	9,707	68,240	60,987
2017-18	4(2)	11,792 (Note 2)	28,043	0 (Note 4)

Note 1: Figures in brackets denote the number of cases in which signboard owners could not be identified.

Note 2: Another case involving a sum of \$11,826 will be paid to the contractor by BD in 2018-19.

Note 3: The year in which the sum was recovered may not be the same as that

in which the relevant demand note was issued.

Note 4: BD will issue demand notes to relevant signboard owners shortly.

(4) At present, members of the public may report cases in relation to unauthorised signboards to BD through various channels, including the 1823 Call Centre operating 24 hours a day, BD Hotline 2626 1616 (handled by 1823 officers), BD's e-mail (enquiry@bd.gov.hk), and the electronic reporting form on BD's website. We consider there is no need to set up a dedicated reporting hotline at this point.

(5) When handling abandoned or dangerous signboards, BD will generally require signboard owners to remove the signboards concerned within the specified time (normally 14 days) upon issuing DSRNs in accordance with section 105(1) of the PHMSO. In case of non-compliance of the DSRN, BD will also engage government contractors to remove the signboards as soon as practicable. In other words, such cases would be dealt with within a short period of time. Notwithstanding the aforesaid, to enhance transparency, BD will, having regard to cost-effectiveness consideration, consider whether and how to release information relating to unauthorised signboards.

(6) In regard to the SVS, as at the end of April 2018, BD received a total of 662 applications for validation. Among them, 274 signboards have been validated and 51 applications are being processed, whereas the remaining cases were returned due to ineligibility.

Other than participating in the SVS, owners of unauthorised signboards may choose to remove their old signboards and re-erect signboards in accordance with the specifications of the MWCS. Besides, some signboards are ineligible for the SVS. Owners of these signboards must remove and re-erect their signboards under the MWCS. We noted that in the 32 months before the implementation of the SVS (from December 31, 2010 to September 1, 2013), 2 992 minor works for signboards (Note) were received, i.e. an average of 94 submissions per month prior to the implementation of the SVS. In the 56 months after the commencement of the SVS (from September 2, 2013 to April 30, 2018), the figure rose significantly to 24 839, i.e. 444 submissions per month on average (an increase of 372%).

To enhance the participation rate of the SVS and the effectiveness of enforcement against unauthorised signboards, BD launched territory-wide LSOs against unauthorised signboards in target sections of 21 streets in various districts from 2014 to 2017. Statutory removal orders and DSRNs were issued against unauthorised signboards which had not been validated under the SVS or were ineligible for validation. In 2018, BD will launch LSOs in certain sections of 10 other target streets. BD will constantly review the effectiveness of enforcement as well as manpower resources, and make annual adjustment to the scale of annual LSOs in a timely manner.

Besides, to enhance public awareness of the SVS, BD will continue to disseminate relevant information to the public through different means, for instance, by making available relevant guidelines on the website, broadcasting Announcement in the Public Interests, conducting briefings for

the industry and public, distributing promotional leaflets, etc.

Note: Viz. the removal, erection or alteration of signboards that meet the specifications of MWCS.

(7) In accordance with section 40(1BA) of the B0, any person who, without reasonable excuse, fails to comply with a statutory removal order, including statutory removal orders issued against unauthorised signboards, shall be guilty of an offence and shall be liable on conviction to a fine of \$200,000 and to imprisonment for one year, and to a fine of \$20,000 for each day during which the offence has continued. In addition, under section 40(1AA) of the B0, any person who knowingly carries out building works, including erecting signboards, without having obtained from BD the approval of plans and consent to the commencement of works, shall be guilty of an offence and shall be liable on conviction to a fine of \$400,000 and to imprisonment for two years, and to a fine of \$20,000 for each day during which the offence has continued. Generally, the compliance rate of statutory removal orders and DSRNs is satisfactory and we consider the existing penalty level is sufficient to create a deterrent effect.